SUBCHAPTER L—FEDERAL LANDS HIGHWAYS

PART 970—NATIONAL PARK SERVICE MANAGEMENT SYSTEMS

Subpart A—Definitions

Subpart B—National Park Service Management Systems

AUTHORITY: 23 U.S.C. 204 and 315; 42 U.S.C. 7410 *et seq.*; 49 CFR 1.48.

SOURCE: 69 FR 9473, Feb. 27, 2004, unless otherwise noted.

Subpart A—Definitions

§ 970.100 Purpose.

The purpose of this subpart is to provide definitions for terms used in this part.

§ 970.102 Applicability.

The definitions in this subpart are applicable to this part, except as otherwise provided.

§ 970.104 Definitions.

Alternative transportation systems means modes of transportation other than private vehicles, including methods to improve system performance such as transportation demand management, congestion management, and intelligent transportation systems. These mechanisms help reduce the use of private vehicles and thus improve overall efficiency of transportation systems and facilities.

Elements means the components of a bridge important from a structural, user, or cost standpoint. Examples are decks, joints, bearings, girders, abutments, and piers.

Federal lands bridge management system (BMS) means a systematic process used by the Forest Service (FS), the Fish and Wildlife Service (FWS) and the National Park Service (NPS) for collecting and analyzing bridge data to make forecasts and recommendations, and provides the means by which bridge maintenance, rehabilitation, and replacement programs and policies may be efficiently and effectively considered.

Federal lands congestion management system (CMS) means a systematic process used by the NPS, the FWS and the FS for managing congestion that provides information on transportation system performance, and alternative strategies for alleviating congestion and enhancing the mobility of persons and goods to levels that meet Federal, State and local needs.

Federal Lands Highway Program (FLHP) means a federally funded program established in 23 U.S.C. 204 to address transportation needs of Federal and Indian lands.

Federal lands pavement management system (PMS) means a systematic process used by the NPS, the FWS and the FS that provides information for use in implementing cost-effective pavement reconstruction, rehabilitation, and preventive maintenance programs and policies, and that results in pavement designed to accommodate current and forecasted traffic in a safe, durable, and cost-effective manner.

Federal lands safety management system (SMS) means a systematic process used by the NPS, the FWS and the FS with the goal of reducing the number and severity of traffic accidents by ensuring that all opportunities to improve roadway safety are identified, considered, implemented, and evaluated, as appropriate, during all phases of highway planning, design, construction, operation and maintenance, by providing information for selecting and implementing effective highway safety strategies and projects.

Highway safety means the reduction of traffic accidents on public roads, including reductions in deaths, injuries, and property damage.

Intelligent transportation system (ITS) means electronics, communications, or information processing used singly or in combination to improve the efficiency and safety of a surface transportation system.

Life-cycle cost analysis means an evaluation of costs incurred over the life of a project allowing a comparative analysis between or among various alternatives. Life-cycle cost analysis promotes consideration of total cost, including maintenance and operation expenditures. Comprehensive life-cycle cost analysis includes all economic variables essential to the evaluation, including user costs such as delay, safety costs associated with maintenance and rehabilitation projects, agency capital costs, and life-cycle maintenance costs.

Metropolitan planning area means the geographic area in which the metropolitan transportation planning process required by 23 U.S.C. 134 and 49 U.S.C. 5303–5306 must be carried out.

Metropolitan planning organization (MPO) means the forum for cooperative transportation decision-making for the metropolitan planning area pursuant to 23 U.S.C. 134 and 49 U.S.C. 5303.

National Park Service transportation plan means an official NPS multimodal transportation plan that is developed through the NPS transportation planning process pursuant to 23 U.S.C. 204.

Operations means those activities associated with managing, controlling, and regulating highway and pedestrian traffic.

Park road means a public road, including a bridge built primarily for pedestrian use, but with capacity for use by emergency vehicles, that is located within, or provides access to, an area in the National Park System with title and maintenance responsibilities vested in the United States.

Park Road Program transportation improvement program (PRPTIP) means a staged, multi-year, multimodal program of NPS transportation projects in a State area. The PRPTIP is consistent with the NPS transportation plan and developed through the NPS planning processes pursuant to 23 U.S.C. 204.

Park roads and parkways program means a program that is authorized in 23 U.S.C. 204 with funds allocated to the NPS by the Federal Highway Administration (FHWA) for each fiscal year as provided in 23 U.S.C. 202(c) and 23 U.S.C. 204.

Parkway means a parkway authorized by Act of Congress on lands to which title is vested in the United States.

Secretary means the Secretary of Transportation.

Serviceability means the degree to which a bridge provides satisfactory service from the point of view of its users.

State means any one of the fifty States, the District of Columbia, or Puerto Rico.

Transportation facilities means roads, streets, bridges, parking areas, transit vehicles, and other related transportation infrastructure.

Transportation Management Area (TMA) means an urbanized area with a population over 200,000 (as determined by the latest decennial census) or other area when TMA designation is requested by the Governor and the MPO (or affected local officials), and officially designated by the Administrators of the FHWA and the Federal Transit Administration (FTA). The TMA designation applies to the entire metropolitan planning area(s).

Subpart B—National Park Service Management Systems

§ 970.200 Purpose.

The purpose of this subpart is to implement 23 U.S.C. 204, which requires the Secretary and the Secretary of each appropriate Federal land management agency, to the extent appropriate, to develop by rule safety, bridge, pavement, and congestion management systems for roads funded under the FLHP. These management systems serve to guide the National Park Service (NPS) in developing transportation plans and making resource allocation decisions for the PRPTIP.

§ 970.202 Applicability.

The provisions in this subpart are applicable to the NPS and the Federal Highway Administration (FHWA) that are responsible for satisfying these requirements for management systems pursuant to 23 U.S.C. 204.

§ 970.204 Management systems requirements.

(a) The NPS shall develop, establish and implement the management systems as described in this subpart. The NPS may tailor all management systems to meet the NPS goals, policies, and needs using professional engineering and planning judgment to determine the required nature and extent of systems coverage consistent with the intent and requirements of this rule. The management systems also shall be developed so they assist in meeting the goals and measures that were jointly developed by the FHWA and the NPS in response to the Government Performance and Results Act of 1993 (Pub. L. 103–62, 107 Stat. 285).

(b) The NPS and the FHWA shall develop an implementation plan for each of the management systems. These plans will include, but are not limited to, the following: Overall goals and policies concerning the management systems, each agency's responsibilities for developing and implementing the management systems, implementation schedule, data sources, and cost estimate. The FHWA will provide the NPS ongoing technical engineering support for the development, implementation, and maintenance of the management systems.

(c) The NPS shall develop and implement procedures for the development, establishment, implementation and operation of management systems. The procedures shall include:

(1) A process for ensuring the outputs of the management systems are considered in the development of NPS transportation plans and PRPTIPs and in making project selection decisions under 23 U.S.C. 204;

(2) A process for the analysis and coordination of all management system outputs to systematically operate, maintain, and upgrade existing transportation assets cost-effectively;

(3) A description of each management system;

(4) A process to operate and maintain the management systems and their associated databases; and

(5) A process for data collection, processing, analysis and updating for each management system.

(d) All management systems will use databases with a geographical reference system that can be used to geolocate all database information.

(e) Existing data sources may be used by the NPS to the maximum extent possible to meet the management system requirements.

(f) The NPS shall develop an appropriate means to evaluate the effectiveness of the management systems in enhancing transportation investment decision-making and improving the overall efficiency of the affected transportation systems and facilities. This evaluation is to be conducted periodically, preferably as part of the NPS planning process.

(g) The management systems shall be operated so investment decisions based on management system outputs can be considered at the national, regional, and park levels.

§ 970.206 Funds for establishment, development, and implementation of the systems.

The Park Roads and Parkways program funds may be used for development, establishment, and implementation of the management systems. These funds are to be administered in accordance with the procedures and requirements applicable to the funds.

§ 970.208 Federal lands pavement management system (PMS).

In addition to the requirements provided in § 970.204, the PMS must meet the following requirements:

(a) The NPS shall have PMS coverage of all paved park roads, parkways, parking areas and other associated facilities, as appropriate, that are funded under the FLHP.

(b) The PMS may be utilized at various levels of technical complexity depending on the nature of the transportation network. These different levels may depend on mileage, functional

classes, volumes, loading, usage, surface type, or other criteria the NPS deems appropriate.

(c) The PMS shall be designed to fit the NPS goals, policies, criteria, and needs using the following components, at a minimum, as a basic framework for a PMS:

(1) A database and an ongoing program for the collection and maintenance of the inventory, inspection, cost, and supplemental data needed to support the PMS. The minimum PMS database shall include:

(i) An inventory of the physical pavement features including the number of lanes, length, width, surface type, functional classification, and shoulder information;

(ii) A history of project dates and types of construction, reconstruction, rehabilitation, and preventive maintenance. If some of the inventory or historic data is difficult to establish, it may be collected when preservation or reconstruction work is performed;

(iii) Condition data that includes roughness, distress, rutting, and surface friction (as appropriate);

(iv) Traffic information including volumes and vehicle classification (as appropriate); and

(v) Data for estimating the costs of actions.

(2) A system for applying network level analytical procedures that are capable of analyzing data for all park roads, parkways and other appropriate associated facilities in the inventory or any subset. The minimum analyses shall include:

(i) A pavement condition analysis that includes roughness, distress, rutting, and surface friction (as appropriate);

(ii) A pavement performance analysis that includes present and predicted performance and an estimate of the remaining service life (performance and remaining service life to be developed with time); and

(iii) An investment analysis that:

(A) Identifies alternative strategies to improve pavement conditions;

(B) Estimates costs of any pavement improvement strategy;

(C) Determines maintenance, repair, and rehabilitation strategies for pavements using life-cycle cost analysis or a comparable procedure;

(D) Provides for short and long term budget forecasting; and

(E) Recommends optimal allocation of limited funds by developing a prioritized list of candidate projects over a predefined planning horizon (both short and long term).

(d) For any park roads, parkways and other appropriate associated facilities in the inventory or subset thereof, PMS reporting requirements shall include, but are not limited to, percentage of roads in good, fair, and poor condition.

[69 FR 9473, Feb. 27, 2004; 69 FR 16793, Mar. 31, 2004]

§970.210 Federal lands bridge management system (BMS).

In addition to the requirements provided in §970.204, the BMS must meet the following requirements:

(a) The NPS shall have a BMS for the bridges which are under the NPS jurisdiction, funded under the FLHP, and required to be inventoried and inspected as prescribed by 23 U.S.C. 144.

(b) The BMS shall be designed to fit the NPS goals, policies, criteria, and needs using, as a minimum, the following components:

(1) A database and an ongoing program for the collection and maintenance of the inventory, inspection, cost, and supplemental data needed to support the BMS. The minimum BMS database shall include:

(i) Data described by the inventory section of the National Bridge Inspection Standards (23 CFR part 650, subpart C);

(ii) Data characterizing the severity and extent of deterioration of bridge elements;

(iii) Data for estimating the cost of improvement actions;

(iv) Traffic information including volumes and other pertinent information; and

(v) A history of conditions and actions taken on each bridge, excluding minor or incidental maintenance.

(2) A system for applying network level analytical procedures that are capable of analyzing data for all bridges in the inventory or any subset. The minimum analyses shall include:

(i) A prediction of performance and estimate of the remaining service life of structural and other key elements of each bridge, both with and without intervening actions; and

(ii) A recommendation for optimal allocation of limited funds through development of a prioritized list of candidate projects over predefined short and long term planning horizons.

(c) The BMS may include the capability to perform an investment analysis as appropriate, considering size of structure, traffic volume, and structural condition. The investment analysis may:

(1) Identify alternative strategies to improve bridge condition, safety and serviceability;

(2) Estimate the costs of any strategies ranging from maintenance of individual elements to full bridge replacement;

(3) Determine maintenance, repair, and rehabilitation strategies for bridge elements using life cycle cost analysis or a comparable procedure;

(4) Provide short and long term budget forecasting; and

(5) Evaluate the cultural and historical values of the structure.

(d) For any bridge in the inventory or subset thereof, BMS reporting requirements shall include, but are not limited to, percentage of non-deficient bridges.

§ 970.212 Federal lands safety management system (SMS).

In addition to the requirements provided in § 970.204, the SMS must meet the following requirements:

(a) The NPS shall have an SMS for all transportation systems serving NPS facilities, as appropriate, funded under the FLHP.

(b) The NPS shall use the SMS to ensure that safety is considered and implemented, as appropriate, in all phases of transportation system planning, design, construction, maintenance, and operations.

(c) The SMS shall be designed to fit the NPS goals, policies, criteria, and needs and shall contain the following components: (1) An ongoing program for the collection, maintenance and reporting of a data base that includes:

(i) Accident records with details for analysis such as accident type, using standard reporting descriptions (e.g., right-angle, rear-end, head-on, pedestrian-related), location, description of event, severity, weather and cause;

(ii) An inventory of safety appurtenances such as signs, delineators, and guardrails (including terminals);

(iii) Traffic information including volume, speed, and vehicle classification, as appropriate.

(iv) Accident rates by customary criteria such as location, roadway classification, and vehicle miles of travel.

(2) Development, establishment, and implementation of procedures for:

(i) Routinely maintaining and upgrading safety appurtenances including highway-rail crossing warning devices, signs, highway elements, and operational features, where appropriate;

(ii) Identifying and investigating hazardous or potentially hazardous transportation elements and systems, transit vehicles and facilities, roadway locations and features;

(iii) Establishing countermeasures and setting priorities to address identified needs.

(3) A process for communication, coordination, and cooperation among the organizations responsible for the roadway, human, and vehicle safety elements;

(d) While the SMS applies to appropriate transportation systems serving NPS facilities funded under the FLHP, the extent of system requirements (e.g., data collection, analyses, and standards) for low volume roads may be tailored to be consistent with the functional classification of the road and number and types of transit and other vehicles operated by the NPS.

§ 970.214 Federal lands congestion management system (CMS).

(a) For purposes of this section, congestion means the level at which transportation system performance is no longer acceptable due to traffic interference. For portions of the NPS transportation system outside the boundaries of TMAs, the NPS shall:

(1) Develop criteria to determine when a CMS is to be implemented for a specific transportation system; and

(2) Have CMS coverage for all transportation systems serving NPS facilities that meet minimum CMS needs criteria, as appropriate, funded through the FLHP.

(b) The NPS shall consider the results of the CMS when selecting congestion mitigation strategies that are the most time efficient and cost effective and that add value (protection/rejuvenation of resources, improved visitor experience) to the park and adjacent communities.

(c) In addition to the requirements provided in §970.204, the CMS must meet the following requirements:

(1) For those NPS transportation systems that require a CMS, in both metropolitan and non-metropolitan areas, consideration shall be given to strategies that promote alternative transportation systems, reduce private automobile travel, and best integrate private automobile travel with other transportation modes.

(2) For portions of the NPS transportation system within transportation management areas (TMAs), the NPS transportation planning process shall include a CMS that meets the requirements of this section. By agreement between the TMA and the NPS, the TMA's CMS coverage may include the transportation systems serving NPS facilities, as appropriate. Through this agreement(s), the NPS may meet the requirements of this section.

(3) If congestion exists at a NPS facility within the boundaries of a TMA, and the TMA's CMS does not provide coverage of the portions of the NPS transportation facilities experiencing congestion, the NPS shall develop a separate CMS to cover those facilities. Approaches may include the use of alternate mode studies and implementation plans as components of the CMS.

(4) A CMS will:

(i) Identify and document measures for congestion (e.g., level of service);

(ii) Identify the causes of congestion;

(iii) Include processes for evaluating the cost and effectiveness of alternative strategies;

(iv) Identify the anticipated benefits of appropriate alternative traditional and nontraditional congestion management strategies;

(v) Determine methods to monitor and evaluate the performance of the multi-modal transportation system; and

(vi) Appropriately consider strategies, or combinations of strategies for each area, such as:

(A) Transportation demand management measures;

(B) Traffic operational improvements;

(C) Public transportation improvements;

(D) ITS technologies; and

(E) Additional system capacity.

PART 971—FOREST SERVICE MANAGEMENT SYSTEMS

Subpart A—Definitions

Subpart B—Forest Highway Program Management Systems

AUTHORITY: 23 U.S.C. 204, 315; 42 U.S.C. 7410 *et seq.*; 49 CFR 1.48.

SOURCE: 69 FR 9480, Feb. 27, 2004, unless otherwise noted.

Subpart A—Definitions

§ 971.100 Purpose.

The purpose of this subpart is to provide definitions for terms used in this part.

§ 971.102 Applicability.

The definitions in this subpart are applicable to this part, except as otherwise provided.

§ 971.104 Definitions.

Alternative transportation systems means modes of transportation other than private vehicles, including methods to improve system performance such as transportation demand management, congestion management, and intelligent transportation systems. These mechanisms help reduce the use of private vehicles and thus, improve overall efficiency of transportation systems and facilities.

Elements mean the components of a bridge that are important from a structural, user, or cost standpoint. Examples are decks, joints, bearings, girders, abutments, and piers.

Federal lands bridge management system (BMS) means a systematic process used by the Forest Service (FS), the Fish and Wildlife Service (FWS), and the National Park Service (NPS) for collecting and analyzing bridge data to make forecasts and recommendations, and that provides the means by which bridge maintenance, rehabilitation, and replacement programs and policies may be efficiently and effectively considered.

Federal lands congestion management system (CMS) means a systematic process used by the FS, FWS, and NPS for managing congestion that provides information on transportation system performance, and alternative strategies for alleviating congestion and enhancing the mobility of persons and goods to levels that meet Federal, State, and local needs.

Federal Lands Highway Program (FLHP) means a federally funded program established in 23 U.S.C. 204 to address transportation needs of Federal and Indian lands.

Federal lands pavement management system (PMS) means a systematic process used by the FS, FWS, and NPS that provides information for use in implementing cost-effective pavement reconstruction, rehabilitation, and preventive maintenance programs and policies, and that results in pavement designed to accommodate current and forecasted traffic in a safe, durable, and cost-effective manner.

Federal lands safety management system (SMS) means a systematic process used by the FS, FWS, and NPS with the goal of reducing the number and severity of traffic accidents by ensuring that all opportunities to improve roadway safety are identified, considered, implemented, and evaluated as appropriate, during all phases of highway planning, design, construction, operation and maintenance, by providing information for selecting and implementing effective highway safety strategies and projects.

Forest highway (FH) means a forest road under the jurisdiction of, and maintained by, a public authority and open to public travel.

Forest Highway Program means the public lands highway funds allocated each fiscal year, as is provided in 23 U.S.C. 202, for projects that provide access to and within the National Forest system, as described in 23 U.S.C. 202(b) and 23 U.S.C. 204.

Forest Highway Program transportation improvement program (FHTIP) means a staged, multiyear, multimodal program of transportation projects in a State area consistent with the FH transportation plan and developed through the tri-party FH planning processes pursuant to 23 U.S.C. 204, and 23 CFR 660 subpart A.

Forest Service transportation plan means the official FH multimodal, transportation plan that is developed through the tri-party FH transportation planning process pursuant to 23 U.S.C. 204.

Highway safety means the reduction of traffic accidents on public roads, including reductions in deaths, injuries, and property damage.

Intelligent transportation system (ITS) means electronics, communications, or information processing, used singly or in combination, to improve the efficiency and safety of a surface transportation system.

Life-cycle cost analysis means an evaluation of costs incurred over the life of a project allowing a comparative analysis between or among various alternatives. Life-cycle cost analysis promotes consideration of total cost, including maintenance and operation expenditures. Comprehensive life-cycle cost analysis includes all economic variables essential to the evaluation including user costs such as delay, safety costs associated with maintenance and rehabilitation projects,

agency capital costs, and life-cycle maintenance costs.

Metropolitan planning area means the geographic area in which the metropolitan transportation planning process, required by 23 U.S.C. 134 and 49 U.S.C. 5303–5306, must be carried out.

Metropolitan planning organization (MPO) means the forum for cooperative transportation decision-making for the metropolitan planning area pursuant to 23 U.S.C. 134 and 49 U.S.C. 5303.

National Forest System means all the lands and waters reported by the FS as being part of the National Forest System, including those generally known as National Forests and National Grasslands.

Operations means those activities associated with managing, controlling, and regulating highway traffic.

Secretary means the Secretary of Transportation.

Serviceability means the degree to which a bridge provides satisfactory service from the point of view of its users.

State means any one of the 50 States, the District of Columbia, or Puerto Rico.

Transportation facilities mean roads, streets, bridges, parking areas, transit vehicles, and other related transportation infrastructure.

Transportation Management Area (TMA) means an urbanized area with a population over 200,000 (as determined by the latest decennial census) or other area when TMA designation is requested by the Governor and the MPO (or affected local officials). It also must be officially designated by the Administrators of the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). The TMA designation applies to the entire metropolitan planning area(s).

Tri-party means the joint, cooperative, shared partnership among the Federal Lands Highway Division (FLHD), State Department of Transportation (State DOT), and the FS to carry out the FH program.

Subpart B—Forest Highway Program Management Systems

§ 971.200 Purpose.

The purpose of this subpart is to implement 23 U.S.C. 204, which requires the Secretary and the Secretary of each appropriate Federal land management agency, to the extent appropriate, to develop by rule safety, bridge, pavement, and congestion management systems for roads funded under the FLHP.

§ 971.202 Applicability.

The provisions in this subpart are applicable to the FS, the Federal Highway Administration, and the State DOTs that are responsible for satisfying these requirements for management systems pursuant to 23 U.S.C. 204.

§ 971.204 Management systems requirements.

(a) The tri-party partnership shall develop, establish, and implement the management systems as described in this subpart. If the State has established a management system for FH that fulfills the requirements in 23 U.S.C. 303, that management system, to the extent applicable, can be used to meet the requirements of this subpart consistent with 23 CFR 660.105(b). The management systems may be tailored to meet the FH program goals, policies, and needs using professional engineering and planning judgment to determine the nature and extent of systems coverage consistent with the intent and requirements of this rule.

(b) The tri-party partnership shall develop and implement procedures for the acceptance of the existing, or the development, establishment, implementation, and operation of new management systems. The procedures shall include:

(1) A process for ensuring the output of the management systems is considered in the development of the FH program transportation plans and transportation improvement programs, and in making project selection decisions under 23 U.S.C. 204;

(2) A process for the analyses and coordination of all management systems outputs to systematically operate,

maintain, and upgrade existing transportation assets cost-effectively;

(3) A description of each management system;

(4) A process to operate and maintain the management systems and their associated databases; and

(5) A process for data collection, processing, analysis, and updating for each management system.

(c) All management systems will use databases with a common or coordinated reference system, that can be used to geolocate all database information, to ensure that data across management systems are comparable.

(d) Existing data sources may be used by the tri-party partnership to meet the management system requirements.

(e) The tri-party partnership shall develop an appropriate means to evaluate the effectiveness of the management systems in enhancing transportation investment decision-making and improving the overall efficiency of the affected transportation systems and facilities. This evaluation is to be conducted periodically, preferably as part of the FS planning process.

(f) The management systems shall be operated so investment decisions based on management system outputs can be accomplished at the State level.

§ 971.206 Funds for establishment, development, and implementation of the systems.

The FH program funds may be used for development, establishment, and implementation of the management systems. These funds are to be administered in accordance with the procedures and requirements applicable to the funds.

§ 971.208 Federal lands pavement management system (PMS).

In addition to the requirements provided in §971.204, the PMS must meet the following requirements:

(a) The tri-party partnership shall have PMS coverage of all FHs and other associated facilities, as appropriate, funded under the FLHP.

(b) The PMS may be based on the concepts described in the AASHTO's ''Pavement Management Guide.'' [1]

(c) The PMS may be utilized at various levels of technical complexity depending on the nature of the transportation network. These different levels may depend on mileage, functional classes, volumes, loading, usage, surface type, or other criteria the tri-party partnership deems appropriate.

(d) The PMS shall be designed to fit the FH program goals, policies, criteria, and needs using the following components, at a minimum, as a basic framework for a PMS:

(1) A database and an ongoing program for the collection and maintenance of the inventory, inspection, cost, and supplemental data needed to support the PMS. The minimum PMS database shall include:

(i) An inventory of the physical pavement features including the number of lanes, length, width, surface type, functional classification, and shoulder information;

(ii) A history of project dates and types of construction, reconstruction, rehabilitation, and preventive maintenance. If some of the inventory or historic data is difficult to establish, it may be collected when preservation or reconstruction work is performed;

(iii) A condition survey that includes ride, distress, rutting, and surface friction (as appropriate);

(iv) Traffic information including volumes and vehicle classification (as appropriate); and

(v) Data for estimating the costs of actions.

(2) A system for applying network level analytical procedures that are capable of analyzing data for all FHs and other appropriate associated facilities in the inventory or any subset. The minimum analyses shall include:

[1] ''Pavement Management Guide,'' AASHTO, 2001, is available for inspection as prescribed at 49 CFR part 7. It is also available from the American Association of State Highway and Transportation Officials (AASHTO), Publication Order Dept., P.O. Box 96716, Washington, DC 20090–6716 or online at *http://www.transportation.org/publications/bookstore.nsf*.

(i) A pavement condition analysis that includes ride, distress, rutting, and surface friction (as appropriate);

(ii) A pavement performance analysis that includes present and predicted performance and an estimate of the remaining service life. Performance and remaining service life may be developed with time; and

(iii) An investment analysis that:

(A) Identifies alternative strategies to improve pavement conditions;

(B) Estimates costs of any pavement improvement strategy;

(C) Determines maintenance, repair, and rehabilitation strategies for pavements using life cycle cost analysis or a comparable procedure;

(D) Provides for short and long term budget forecasting; and

(E) Recommends optimal allocation of limited funds by developing a prioritized list of candidate projects over a predefined planning horizon (both short and long term).

(e) For any FHs and other appropriate associated facilities in the inventory or subset thereof, PMS reporting requirements shall include, but are not limited to, percentage of roads in good, fair, and poor condition.

§971.210 Federal lands bridge management system (BMS).

In addition to the requirements provided in §971.204, the BMS must meet the following requirements:

(a) The tri-party partnership shall have a BMS for the FH bridges funded under the FLHP and required to be inventoried and inspected under 23 CFR 650, subpart C, National Bridge Inspection Standards (NBIS).

(b) The BMS may be based on the concepts described in the AASHTO's ''Guidelines for Bridge Management Systems.'' [2]

(c) The BMS shall be designed to fit the FH program goals, policies, criteria, and needs using the following components, as a minimum, as a basic framework for a BMS:

(1) A database and an ongoing program for the collection and maintenance of the inventory, inspection, cost, and supplemental data needed to support the BMS. The minimum BMS database shall include:

(i) The inventory data required by the NBIS (23 CFR 650, subpart C);

(ii) Data characterizing the severity and extent of deterioration of bridge elements;

(iii) Data for estimating the cost of improvement actions;

(iv) Traffic information including volumes and vehicle classification (as appropriate); and

(v) A history of conditions and actions taken on each bridge, excluding minor or incidental maintenance.

(2) A system for applying network level analytical procedures at the State or local area level, as appropriate, and capable of analyzing data for all bridges in the inventory or any subset. The minimum analyses shall include:

(i) A prediction of performance and estimate of the remaining service life of structural and other key elements of each bridge, both with and without intervening actions; and

(ii) A recommendation for optimal allocation of limited funds through development of a prioritized list of candidate projects over predefined short and long-term planning horizons.

(d) The BMS may include the capability to perform an investment analysis, as appropriate, considering size of structure, traffic volume, and structural condition. The investment analysis may:

(1) Identify alternative strategies to improve bridge condition, safety, and serviceability;

(2) Estimate the costs of any strategies ranging from maintenance of individual elements to full bridge replacement;

(3) Determine maintenance, repair, and rehabilitation strategies for bridge elements using life cycle cost analysis or a comparable procedure; and

(4) Provide short and long-term budget forecasting.

[2] ''Guidelines for Bridge Management Systems,'' AASHTO, 1993, is available for inspection as prescribed at 49 CFR part 7. It is also available from the American Association of State Highway and Transportation Officials (AASHTO), Publication Order Dept., P.O. Box 96716, Washington, DC 20090–6716 or online at *http://www.transportation.org/publications/bookstore.nsf*.

(e) For any bridge in the inventory or subset thereof, BMS reporting requirements shall include, but are not limited to, percentage of non-deficient bridges.

§ 971.212 Federal lands safety management system (SMS).

In addition to the requirements provided in § 971.204, the SMS must meet the following requirements:

(a) The tri-party partnership shall have an SMS for transportation systems providing access to and within National Forests and Grasslands, and funded under the FLHP.

(b) The SMS may be based on the guidance in ''Safety Management Systems: Good Practices for Development and Implementation.''[3]

(c) The tri-party partnership shall utilize SMS to ensure that safety is considered and implemented, as appropriate, in all phases of transportation system planning, design, construction, maintenance, and operations.

(d) The SMS may be utilized at various levels of complexity depending on the nature of the facility and/or network involved.

(e) The SMS shall be designed to fit the FH program goals, policies, criteria, and needs and shall contain the following components:

(1) An ongoing program for the collection, maintenance, and reporting of a database that includes:

(i) Accident records with detail for analysis such as accident type using standard reporting descriptions (e.g., right-angle, rear-end, head-on, pedestrian-related, etc.), location, description of event, severity, weather, and cause;

(ii) An inventory of safety appurtenances such as signs, delineators, and guardrails (including terminals);

(iii) Traffic information including volume and vehicle classification (as appropriate); and

(iv) Accident rates by customary criteria such as location, roadway classification, and vehicle miles of travel.

(2) Development, establishment, and implementation of procedures for:

(i) Where appropriate, routine maintenance and upgrading of safety appurtenances including highway rail crossing safety devices, signs, highway elements, and operational features,

(ii) Identifying, investigating, and analyzing hazardous or potentially hazardous transportation system safety problems, roadway locations, and features;

(iii) Establishing countermeasures and setting priorities to correct the identified hazards and potential hazards.

(3) Identification of focal points for all contacts at State, regional, tribal, and local levels to coordinate, develop, establish, and implement the SMS among the agencies.

(f) While the SMS applies to appropriate transportation systems providing access to and within National Forests and Grasslands funded under the FLHP, the extent of system requirements (e.g., data collection, analyses, and standards) for low volume roads may be tailored to be consistent with the functional classification of the roads. However, adequate requirements should be included for each roadway to provide for effective inclusion of safety decisions in the administration of the FH program.

[69 FR 9480, Feb. 27, 2004, as amended at 74 FR 28442, June 16, 2009]

§ 971.214 Federal lands congestion management system (CMS).

(a) For purposes of this section, congestion means the level at which transportation system performance is no longer acceptable due to traffic interference. For portions of the FH network outside the boundaries of TMAs, the tri-party partnership shall:

(1) Develop criteria to determine when a CMS is to be implemented for a specific FH; and

(2) Have CMS coverage for the transportation systems providing access to and within National Forests, as appropriate, that meet minimum CMS criteria.

[3] ''Safety Management Systems: Good Practices for Development and Implementation,'' FHWA and NHTSA, May 1996, may be obtained at the FHWA, Office of Safety, 1200 New Jersey Avenue, SE., Washington, DC 20590, or electronically at *http://safety.fhwa.dot.gov/media/documents.htm*. It is available for inspection and copying as prescribed at 49 CFR part 7.

(b) The tri-party partnership shall consider the results of the CMS when selecting the implementation of strategies that provide the most efficient and effective use of existing and future transportation facilities.

(c) In addition to the requirements provided in §971.204, the CMS must meet the following requirements:

(1) For those FH transportation systems that require a CMS, in both metropolitan and non-metropolitan areas, consideration shall be given to strategies that reduce private automobile travel and improve existing transportation efficiency. Approaches may include the use of alternative mode studies and implementation plans as components of the CMS.

(2) A CMS will:

(i) Identify and document measures for congestion (e.g., level of service);

(ii) Identify the causes of congestion;

(iii) Include processes for evaluating the cost and effectiveness of alternative strategies to manage congestion;

(iv) Identify the anticipated benefits of appropriate alternative traditional and nontraditional congestion management strategies;

(v) Determine methods to monitor and evaluate the performance of the multi-modal transportation system; and

(vi) Appropriately consider the following example categories of strategies, or combinations of strategies for each area:

(A) Transportation demand management measures;

(B) Traffic operational improvements;

(C) Public transportation improvements;

(D) ITS technologies; and

(E) Additional system capacity.

PART 972—FISH AND WILDLIFE SERVICE MANAGEMENT SYSTEMS

Subpart A—Definitions

Sec.

Subpart B—Fish and Wildlife Service Management Systems

AUTHORITY: 23 U.S.C. 204, 315; 42 U.S.C. 7410 *et seq.*; 49 CFR 1.48.

SOURCE: 69 FR 9487, Feb. 27, 2004, unless otherwise noted.

Subpart A—Definitions

§ 972.100 Purpose.

The purpose of this subpart is to provide definitions for terms used in this part.

§ 972.102 Applicability.

The definitions in this subpart are applicable to this part, except as otherwise provided.

§ 972.104 Definitions.

Alternative transportation systems means modes of transportation other than private vehicles, including methods to improve system performance such as transportation demand management, congestion management, and intelligent transportation systems. These mechanisms help reduce the use of private vehicles and thus improve overall efficiency of transportation systems and facilities.

Elements mean the components of a bridge important from a structural, user, or cost standpoint. Examples are decks, joints, bearings, girders, abutments, and piers.

Federal lands bridge management system (BMS) means a systematic process used by the Forest Service (FS), the Fish and Wildlife Service (FWS) and the National Park Service (NPS) for

analyzing bridge data to make forecasts and recommendations, and provides the means by which bridge maintenance, rehabilitation, and replacement programs and policies may be effectively considered.

Federal lands congestion management system (CMS) means a systematic process used by the FS, FWS and NPS for managing congestion that provides information on transportation system performance and alternative strategies for alleviating congestion and enhancing the mobility of persons and goods to levels that meet Federal, State and local needs.

Federal Lands Highway Program (FLHP) means a federally funded program established in 23 U.S.C. 204 to address transportation needs of Federal and Indian lands.

Federal lands pavement management system (PMS) means a systematic process used by the FS, FWS and NPS that provides information for use in implementing cost-effective pavement reconstruction, rehabilitation, and preventive maintenance programs and policies and that results in pavement designed to accommodate current and forecasted traffic in a safe, durable, and cost-effective manner.

Federal lands safety management system (SMS) means a systematic process used by the FS, FWS and NPS with the goal of reducing the number and severity of traffic accidents by ensuring that all opportunities to improve roadway safety are identified, considered, implemented and evaluated as appropriate, during all phases of highway planning, design, construction, operation and maintenance, by providing information for selecting and implementing effective highway safety strategies and projects.

Fish and Wildlife Service transportation plan means the official Fish and Wildlife Service-wide multimodal transportation plan that is developed through the Fish and Wildlife Service transportation planning process pursuant to 23 U.S.C. 204.

Highway safety means the reduction of traffic accidents, and deaths, injuries, and property damage resulting therefrom, on public roads.

Intelligent transportation system (ITS) means electronics, communications, or information processing used singly or in combination to improve the efficiency and safety of a surface transportation system.

Life-cycle cost analysis means an evaluation of costs incurred over the life of a project allowing a comparative analysis between or among various alternatives. Life-cycle cost analysis promotes consideration of total cost, to include maintenance and operation expenditures. Comprehensive life-cycle costs analysis includes all economic variables essential to the evaluation: User costs such as delay and safety costs associated with maintenance and rehabilitation projects, agency capital cost, and life-cycle maintenance costs.

Metropolitan planning area means the geographic area in which the metropolitan transportation planning process required by 23 U.S.C. 134 and 49 U.S.C. 5303–5306 must be carried out.

Metropolitan planning organization (MPO) means the forum for cooperative transportation decision-making for the metropolitan planning area pursuant to 23 U.S.C. 134 and 49 U.S.C. 5303.

National Wildlife Refuge System (Refuge System) means all the lands and waters reported by the FWS as being part of the National Wildlife Refuge System in the annual ''Report of Lands Under Control of the U.S. FWS.'' [1] Included in the Refuge System are those lands that are generally known as refuges, waterfowl production areas, wetland management districts, and coordination areas.

Operations means those activities associated with managing, controlling, and regulating highway traffic.

Refuge road means a public road that provides access to or is located within a unit of the National Wildlife Refuge System and for which title and maintenance responsibilities are vested in the United States Government.

Refuge Roads Program means the funds allocated each fiscal year, as described in 23 U.S.C. 202(e) and 23 U.S.C. 204(k).

[1] ''Report of Lands under Control of the U.S. FWS,'' U.S. FWS, (published annually on September 30). A free copy is available from the U.S. FWS, Division of Realty, 4401 N. Fairfax Drive, Suite 622, Arlington, VA 22203; telephone: (703) 358–1713.

Refuge Roads transportation improvement program (RRTIP) means a staged, multiyear, multimodal program of transportation projects for the Refuge Roads Program consistent with the Fish and Wildlife Service transportation plan and planning processes pursuant to 23 U.S.C. 204(a) and (k).

Secretary means the Secretary of Transportation.

State means any one of the fifty States, the District of Columbia, or Puerto Rico.

Transportation facilities means roads, streets, bridges, parking areas, transit vehicles, and other related transportation infrastructure.

Transportation Management Area (TMA) means an urbanized area with a population over 200,000 (as determined by the latest decennial census) or other area when TMA designation is requested by the Governor and the MPO (or affected local officials), and officially designated by the Administrators of the Federal Highway Administration and the Federal Transit Administration. The TMA designation applies to the entire metropolitan planning area(s).

Subpart B—Fish and Wildlife Service Management Systems

§ 972.200 Purpose.

The purpose of this subpart is to implement 23 U.S.C. 204 which requires the Secretary and the Secretary of each appropriate Federal land management agency, to the extent appropriate, to develop by rule safety, bridge, pavement, and congestion management systems for roads funded under the FLHP.

§ 972.202 Applicability.

The provisions in this subpart are applicable to the Fish and Wildlife Service (FWS) and the Federal Highway Administration (FHWA) that are responsible for satisfying these requirements for management systems pursuant to 23 U.S.C. 204.

§ 972.204 Management systems requirements.

(a) The FWS shall develop, establish and implement the management systems as described in this subpart. The FWS may tailor the management systems to meet the FWS goals, policies, and needs using professional engineering and planning judgment to determine the required nature and extent of systems coverage consistent with the intent and requirements of this rule.

(b) The FWS and the FHWA shall develop an implementation plan for each of the management systems. These plans will include, but are not limited to, the following: Overall goals and policies concerning the management systems, each agency's responsibilities for developing and implementing the management systems, implementation schedule, data sources, and cost estimate. The FHWA will provide the FWS ongoing technical engineering support for the development, implementation, and maintenance of the management systems.

(c) The FWS shall develop and implement procedures for the development, establishment, implementation and operation of management systems. The procedures shall include:

(1) A process for ensuring the results of any of the management systems are considered in the development of FWS transportation plans and transportation improvement programs and in making project selection decisions under 23 U.S.C. 204;

(2) A process for the analyses and coordination of all management system outputs to systematically operate, maintain, and upgrade existing transportation assets cost-effectively;

(3) A description of each management system;

(4) A process to operate and maintain the management systems and their associated databases; and

(5) A process for data collection, processing, analysis and updating for each management system.

(d) All management systems will use databases with a geographical reference system that can be used to geolocate all database information.

(e) Existing data sources may be used by the FWS to the maximum extent possible to meet the management system requirements.

(f) The FWS shall develop an appropriate means to evaluate the effectiveness of the management systems in enhancing transportation decision-making and improving the overall efficiency of the affected federally owned transportation systems and facilities. This evaluation is to be conducted periodically, preferably as part of the comprehensive resource conservation planning process.

(g) The management systems shall be operated so investment decisions based on management system outputs can be accomplished at the regional level.

§ 972.206 Funds for establishment, development, and implementation of the systems.

The Refuge Roads program funds may be used for development, establishment, and implementation of the management systems. These funds are to be administered in accordance with the procedures and requirements applicable to the funds.

§ 972.208 Federal lands pavement management system (PMS).

In addition to the requirements provided in §972.204, the PMS must meet the following requirements:

(a) The FWS shall, at a minimum, have PMS coverage of all paved refuge roads and other associated facilities, as appropriate, funded under the FLHP.

(b) The PMS may be based on the concepts described in the AASHTO's ''Pavement Management Guide.''[2]

(c) The PMS may be utilized at various levels of technical complexity depending on the nature of the pavement network. These different levels may depend on mileages, functional classes, volumes, loadings, usage, surface type, or other criteria the FWS deems appropriate.

(d) The PMS shall be designed to fit the FWS goals, policies, criteria, and needs using the following components, at a minimum, as a basic framework for a PMS:

(1) A database and an ongoing program for the collection and maintenance of the inventory, inspection, cost, and supplemental data needed to support the PMS. The minimum PMS database shall include:

(i) An inventory of the physical pavement features including the number of lanes, length, width, surface type, functional classification, and shoulder information;

(ii) A history of project dates and types of construction, reconstruction, rehabilitation, and preventive maintenance. If some of the inventory or historic data are difficult to establish, it may be collected when preservation or reconstruction work is performed;

(iii) A condition survey that includes ride, distress, rutting, and surface friction (as appropriate);

(iv) Traffic information including volumes and vehicle classification (as appropriate); and

(v) Data for estimating the costs of actions.

(2) A system for applying network level analytical procedures that are capable of analyzing data for all FWS managed transportation facilities in the inventory or any subset. The minimum analyses shall include:

(i) A pavement condition analysis that includes ride, distress, rutting, and surface friction (as appropriate);

(ii) A pavement performance analysis that includes present and predicted performance and an estimate of the remaining service life (performance and remaining service life to be developed with time); and

(iii) An investment analysis that:

(A) Identifies alternative strategies to improve pavement conditions;

(B) Estimates costs of any pavement improvement strategy;

(C) Determines maintenance, repair, and rehabilitation strategies for pavements using life-cycle cost analysis or a comparable procedure;

(D) Provides short and long term budget forecasting; and

(E) Recommends optimal allocation of limited funds by developing a prioritized list of candidate projects over a predefined planning horizon (both short and long term).

[2] ''Pavement Management Guide,'' AASHTO, 2001, is available for inspection as prescribed at 49 CFR part 7. It is also available from the American Association of State Highway and Transportation Officials (AASHTO), Publication Order Dept., P.O. Box 96716, Washington, DC 20090–6716 or online at *http://www.transportation.org/publications/bookstore.nsf*.

(e) For any FWS managed transportation facilities in the inventory or subset thereof, PMS reporting requirements shall include, but are not limited to, percentage of roads in good, fair, and poor condition.

§ 972.210 Federal lands bridge management system (BMS).

In addition to the requirements provided in § 972.204, the BMS must meet the following requirements:

(a) The FWS shall have a BMS for bridges which are under the FWS jurisdiction, funded under the FLHP, and required to be inventoried and inspected under 23 CFR 650, subpart C, National Bridge Inspection Standards (NBIS).

(b) The BMS shall be designed to fit the FWS goals, policies, criteria, and needs using the following components, as a minimum, as a basic framework for a BMS:

(1) A database and an ongoing program for the collection and maintenance of the inventory, inspection, cost, and supplemental data needed to support the BMS. The minimum BMS database shall include:

(i) The inventory data required by the NBIS (23 CFR 650, subpart C);

(ii) Data characterizing the severity and extent of deterioration of bridge elements;

(iii) Data for estimating the cost of improvement actions;

(iv) Traffic information including volumes and vehicle classification (as appropriate); and

(v) A history of conditions and actions taken on each bridge, excluding minor or incidental maintenance.

(2) Analytical procedures that are capable of analyzing data for all bridges in the inventory or any subset. These procedures include, as appropriate, such factors as bridge condition, recommended repairs/replacement and estimated costs, prediction of the estimated remaining life of the bridge, development of a prioritized list of candidate projects over a specified planning horizon, and budget forecasting.

(c) For any bridge in the inventory or subset thereof, BMS reporting requirements shall include, but are not limited to, percentage of non-deficient bridges.

§ 972.212 Federal lands safety management system (SMS).

In addition to the requirements provided in § 972.204, the SMS must meet the following requirements:

(a) The FWS shall have an SMS for all transportation facilities serving the Refuge System, as appropriate, funded under the FLHP.

(b) The FWS SMS may be based on the guidance in ''Safety Management Systems: Good Practices for Development and Implementation.''[3]

(c) The FWS shall utilize the SMS to ensure that safety is considered and implemented as appropriate in all phases of transportation system planning, design, construction, maintenance, and operations.

(d) The SMS may be utilized at various levels of complexity depending on the nature of the transportation facility involved.

(e) The SMS shall be designed to fit the FWS goals, policies, criteria, and needs using, as a minimum, the following components as a basic framework for a SMS:

(1) An ongoing program for the collection, maintenance and reporting of a database that includes:

(i) Accident records with sufficient detail for analysis such as accident type using standard reporting descriptions (e.g., right-angle, rear-end, head-on, pedestrian-related, etc.), location, description of event, severity, weather and cause;

(ii) An inventory of safety appurtenances such as signs, delineators, and guardrails (including terminals);

(iii) Traffic information including volumes and vehicle classification (as appropriate); and

(iv) Accident rates by customary criteria such as location, roadway classification, and vehicle miles of travel.

(2) Development, establishment and implementation of procedures for:

[3] ''Safety Management Systems: Good Practices for Development and Implementation,'' FHWA and NHTSA, May 1996, may be obtained at the FHWA, Office of Safety, 1200 New Jersey Avenue, SE., Washington, DC 20590, or electronically at *http://safety.fhwa.dot.gov/media/documents.htm.* It is available for inspection and copying as prescribed at 49 CFR part 7.

(i) Routinely maintaining and upgrading safety appurtenances including highway-rail crossing warning devices, signs, highway elements, and operational features where appropriate; and

(ii) Identifying and investigating hazardous or potentially hazardous transportation system safety problems, roadway locations and features, then establishing countermeasures and setting priorities to correct the identified hazards and potential hazards.

(3) A process for communication, coordination, and cooperation among the organizations responsible for the roadway, human, and vehicle safety elements; and

(4) Development and implementation of public information and education activities on safety needs, programs, and countermeasures which affect safety on the FWS transportation systems.

(f) While the SMS applies to appropriate transportation facilities serving the Refuge System funded under the FLHP, the extent of system requirements (e.g., data collection, analyses, and standards) for low volume roads may be tailored to be consistent with the functional classification of the roads. However, sufficient detail should be included for each functional classification to provide adequate information for use in making safety decisions in the RR program.

[69 FR 9487, Feb. 27, 2004, as amended at 74 FR 28442, June 16, 2009]

§ 972.214 Federal lands congestion management system (CMS).

(a) For purposes of this section, congestion means the level at which transportation system performance is no longer acceptable due to traffic interference. For those FWS transportation systems that require a CMS, in both metropolitan and non-metropolitan areas, consideration shall be given to strategies that reduce private automobile travel and improve existing transportation system efficiency. Approaches may include the use of alternate mode studies and implementation plans as components of the CMS. The FWS shall consider the results of the CMS when selecting the implementation of strategies that provide the most efficient and effective use of existing and future transportation facilities, and alleviate congestion.

(b) In addition to the requirements provided in §972.204, the CMS must meet the following requirements:

(1) For portions of the FWS transportation system within TMAs, the FWS transportation planning process shall include a CMS that meets the requirements of this section. By agreement between the TMA and the FWS, the TMA's CMS coverage may include the transportation facilities serving the Refuge System, as appropriate. Through this agreement(s), the FWS may meet the requirements of this section.

(2) If congestion exists at a FWS facility within the boundaries of a TMA, and the TMA's CMS does not provide coverage of the portions of the FWS transportation facilities experiencing congestion, the FWS shall develop a separate CMS to cover those facilities.

(3) For portions of the FWS transportation system outside the boundaries of TMAs, the FWS shall:

(i) Develop criteria to determine when a CMS is to be implemented for a specific transportation system; and

(ii) Have CMS coverage for all transportation facilities serving the Refuge System, as appropriate, funded through the FLHP that meet minimum CMS needs criteria.

(4) A CMS will:

(i) Identify and document measures for congestion (e.g., level of service);

(ii) Identify the causes of congestion;

(iii) Include processes for evaluating the cost and effectiveness of alternative strategies to manage congestion;

(iv) Identify the anticipated benefits of appropriate alternative traditional and nontraditional congestion management strategies;

(v) Determine methods to monitor and evaluate the performance of the multi-modal transportation system;

(vi) Appropriately consider the following example categories of strategies, or combinations of strategies for each area:

(A) Transportation demand management measures;

(B) Traffic operational improvements;

(C) Public transportation improvements;

(D) ITS technologies;

(E) Additional system capacity; and

(vii) Provide information supporting the implementation of actions.

PART 973—MANAGEMENT SYSTEMS PERTAINING TO THE BUREAU OF INDIAN AFFAIRS AND THE INDIAN RESERVATION ROADS PROGRAM

Subpart A—Definitions

Subpart B—Bureau of Indian Affairs Management Systems

AUTHORITY: 23 U.S.C. 204, 315, 42 U.S.C. 7410 *et seq.*; 49 CFR 1.48.

SOURCE: 69 FR 9499, Feb. 27, 2004, unless otherwise noted.

Subpart A—Definitions

§ 973.100 Purpose.

The purpose of this subpart is to provide definitions for terms used in this part.

§ 973.102 Applicability.

The definitions in this subpart are applicable to this part, except as otherwise provided.

§ 973.104 Definitions.

Alternative transportation systems means modes of transportation other than private vehicles, including methods to improve system performance such as transportation demand management, congestion management, and intelligent transportation systems. These mechanisms help reduce the use of private vehicles and thus improve overall efficiency of transportation systems and facilities.

Elements means the components of a bridge important from a structural, user, or cost standpoint. Examples are decks, joints, bearings, girders, abutments, and piers.

Federal Lands Highway Program (FLHP) means a federally funded program established in 23 U.S.C. 204 to address transportation needs of Federal and Indian lands.

Indian lands bridge management system (BMS) means a systematic process used by the Bureau of Indian Affairs (BIA) or Indian Tribal Governments (ITGs) for analyzing bridge data to make forecasts and recommendations, and provides the means by which bridge maintenance, rehabilitation, and replacement programs and policies may be efficiently considered.

Indian lands congestion management system (CMS) means a systematic process used by the BIA or ITGs for managing congestion that provides information on transportation system performance and alternative strategies for alleviating congestion and enhancing the mobility of persons and goods to levels that meet Federal, State and local needs.

Indian lands pavement management system (PMS) means a systematic process used by the BIA or ITGs that provides information for use in implementing cost-effective pavement reconstruction, rehabilitation, and preventive maintenance programs and policies, and that results in pavement designed to accommodate current and forecasted traffic in a safe, durable, and cost-effective manner.

Indian lands safety management system (SMS) means a systematic process used by the BIA or ITGs with the goal of reducing the number and severity of traffic accidents by ensuring that all opportunities to improve roadway safety are identified, considered, implemented and evaluated, as appropriate, during all phases of highway planning, design, construction, operation and maintenance by providing information for selecting and implementing effective highway safety strategies and projects.

Indian reservation road (IRR) means a public road that is located within or provides access to an Indian reservation or Indian trust land or restricted Indian land that is not subject to fee title alienation without the approval of the Federal government, or Indian and Alaska Native villages, groups, or communities in which Indians and Alaskan Natives reside, whom the Secretary of the Interior has determined are eligible for services generally available to Indians under Federal laws specifically applicable to Indians.

Indian Reservation Roads (IRR) Program means a part of the FLHP established in 23 U.S.C. 204 to address the transportation needs of federally recognized ITGs.

Indian Reservation Roads transportation improvement program (IRRTIP) means a multi-year, financially constrained list by year, State, and tribe of IRR-funded projects selected by ITGs that are programmed for construction in the next 3 to 5 years.

Indian Reservation Roads transportation plan means a document setting out a tribe's long-range transportation priorities and needs. The IRR transportation plan, which can be developed by either the tribe or the BIA on behalf of that tribe, is developed through the IRR transportation planning process pursuant to 23 U.S.C. 204 and 25 CFR part 170.

Indian Tribal Government (ITG) means a duly formed governing body of an Indian or Alaska Native Tribe, Band, Nation, Pueblo, Village, or Community that the Secretary of the Interior acknowledges to exist as an Indian tribe pursuant to the Federally Recognized Indian Tribe List Act of 1994, 25 U.S.C. 479a.

Indian tribe (tribe) means any Indian tribe, nation, band, pueblo, rancheria, colony, or community, including any Alaska Native Village, or regional or village corporation as defined or established under the Alaska Native Claims Settlement Act which is federally recognized by the U.S. government for special programs and services provided by the Secretary of the Interior to Indians because of their status as Indians.

Intelligent transportation system (ITS) means electronics, communications, or information processing used singly or in combination to improve the efficiency and safety of a surface transportation system.

Life-cycle cost analysis means an evaluation of costs incurred over the life of a project allowing a comparative analysis between or among various alternatives. Life-cycle cost analysis promotes consideration of total cost, to include maintenance and operation expenditures. Comprehensive life-cycle cost analysis includes all economic variables essential to the evaluation: Safety costs associated with maintenance and rehabilitation projects, agency capital cost, and life-cycle maintenance costs.

Operations means those activities associated with managing, controlling, and regulating highway traffic.

Secretary means the Secretary of Transportation.

Serviceability means the degree to which a bridge provides satisfactory service from the point of view of its users.

State means any one of the fifty States, the District of Columbia, or Puerto Rico.

Transportation facilities means roads, streets, bridges, parking areas, transit vehicles, and other related transportation infrastructure.

Subpart B—Bureau of Indian Affairs Management Systems

§ 973.200 Purpose.

The purpose of this subpart is to implement 23 U.S.C. 204 which requires the Secretary and the Secretary of each appropriate Federal land management agency to the extent appropriate, to develop by rule safety, bridge, pavement, and congestion management systems for roads funded under the FLHP.

§ 973.202 Applicability.

The provisions in this subpart are applicable to the Bureau of Indian Affairs (BIA), the Federal Highway Administration (FHWA), and the Indian Tribal Governments (ITGs) that are responsible for satisfying these requirements for management systems pursuant to 23 U.S.C. 204.

§ 973.204 Management systems requirements.

(a) The BIA, in consultation with the tribes, shall develop, establish and implement nationwide pavement, bridge, and safety management systems for federally and tribally owned IRRs. The BIA may tailor the nationwide management systems to meet the agency's goals, policies, and needs, after considering the input from the tribes, and using professional engineering and planning judgment to determine the required nature and extent of systems coverage consistent with the intent and requirements of this rule.

(b) The BIA and the FHWA, in consultation with the tribes, shall develop an implementation plan for each of the nationwide management systems. These plans will include, but are not limited to, the following: Overall goals and policies concerning the nationwide management systems, each agency's responsibilities for developing and implementing the nationwide management systems, implementation schedule, data sources, including the need to accommodate State and local data, and cost estimate.

(c) Indian tribes may develop, establish, and implement tribal management systems under a self-determination contract or self-governance annual funding agreement. The tribe may tailor the management systems to meet its goals, policies, and needs, using professional engineering and planning judgment to determine the required nature and extent of systems coverage consistent with the intent and requirements of this rule.

(d) The BIA, in consultation with the tribes, shall develop criteria for cases in which tribal management systems are not appropriate.

(e) The BIA, in consultation with the tribes, or the tribes under a self-determination contract or self-governance annual funding agreement, may incorporate data provided by States and local governments into the nationwide or tribal management systems, as appropriate, for State and locally owned IRRs.

(f) The BIA, in consultation with the tribes, shall develop and implement procedures for the development, establishment, implementation and operation of nationwide management systems. If a tribe develops tribal management systems, the tribe shall develop and implement procedures for the development, establishment, implementation and operation of tribal management systems. The procedures shall include:

(1) A description of each management system;

(2) A process to operate and maintain the management systems and their associated databases;

(3) A process for data collection, processing, analysis and updating for each management system;

(4) A process for ensuring the results of the management systems are considered in the development of IRR transportation plans and transportation improvement programs and in making project selection decisions under 23 U.S.C. 204; and

(5) A process for the analysis and coordination of all management systems outputs to systematically operate, maintain, and upgrade existing transportation assets cost-effectively;

(g) All management systems shall use databases with a common or coordinated reference system that can be used to geolocate all database information.

(h) Existing data sources may be used by the BIA and the tribes to the maximum extent possible to meet the management system requirements.

(i) A nationwide congestion management system is not required. The BIA and the FHWA, in consultation with the tribes, shall develop criteria for determining when congestion management systems are required for BIA or tribal transportation facilities providing access to and within the Indian reservations. Either the tribes or the BIA, in consultation with the tribes, shall develop, establish and implement congestion management systems for the transportation facilities that meet the criteria.

(j) The BIA shall develop an appropriate means to evaluate the effectiveness of the nationwide management systems in enhancing transportation investment decisions and improving the overall efficiency of the affected transportation systems and facilities.

This evaluation is to be conducted periodically, preferably as part of the BIA planning process to assist the FHWA in evaluating the efficiency and effectiveness of the management systems as a component of the IRR program, and may include consultation with the tribes, as appropriate.

(k) The management systems shall be operated so investment decisions based on management system outputs can be accomplished at the BIA region and tribal level and can be utilized throughout the transportation planning process.

§ 973.206 Funds for establishment, development, and implementation of the systems.

The IRR program management funds may be used to accomplish nationwide management system activities. For tribal management system activities, the IRR two percent tribal transportation planning or construction funds may be used. (Refer to 23 U.S.C. 204(b) and 204(j)). These funds are to be administered in accordance with the procedures and requirements applicable to the funds.

§ 973.208 Indian lands pavement management system (PMS).

In addition to the requirements provided in §973.204, the PMS must meet the following requirements:

(a) The BIA shall have PMS coverage for all federally and tribally owned, paved IRRs included in the IRR inventory.

(b) Where a tribe collects data for the tribe's PMS, the tribe shall provide the data to the BIA to be used in the nationwide PMS.

(c) The nationwide and tribal PMSs may be based on the concepts described in the AASHTO's ''Pavement Management Guide.'' [1]

(d) The nationwide and tribal PMSs may be utilized at various levels of technical complexity depending on the nature of the pavement network. These different levels may depend on mileage, functional classes, volumes, loading, usage, surface type, or other criteria the BIA and ITGs deem appropriate.

(e) A PMS shall be designed to fit the BIA's or tribes' goals, policies, criteria, and needs using the following components, at a minimum, as a basic framework for a PMS:

(1) A database and an ongoing program for the collection and maintenance of the inventory, inspection, cost, and supplemental data needed to support the PMS. The minimum PMS database shall include:

(i) An inventory of the physical pavement features including the number of lanes, length, width, surface type, functional classification, and shoulder information;

(ii) A history of project dates and types of construction, reconstruction, rehabilitation, and preventive maintenance. If some of the inventory or historic data is difficult to establish, it may be collected when preservation or reconstruction work is performed;

(iii) A condition survey that includes ride, distress, rutting, and surface friction (as appropriate);

(iv) Traffic information including volumes and vehicle classification (as appropriate); and

(v) Data for estimating the costs of actions.

(2) A system for applying network level analytical procedures that are capable of analyzing data for all federally and tribally owned IRR in the inventory or any subset. The minimum analyses shall include:

(i) A pavement condition analysis that includes ride, distress, rutting, and surface friction (as appropriate);

(ii) A pavement performance analysis that includes present and predicted performance and an estimate of the remaining service life (performance and remaining service life to be developed with time); and

(iii) An investment analysis that:

(A) Identifies alternative strategies to improve pavement conditions;

(B) Estimates costs of any pavement improvement strategy;

[1] ''Pavement Management Guide,'' AASHTO, 2001, is available for inspection as prescribed at 49 CFR part 7. It is also available from the American Association of State Highway and Transportation Officials (AASHTO), Publication Order Dept., P.O. Box 96716, Washington, DC 20090–6716 or online at *http://www.transportation.org/publications/bookstore.nsf*.

(C) Determines maintenance, repair, and rehabilitation strategies for pavements using life cycle cost analysis or a comparable procedure;

(D) Performs short and long term budget forecasting; and

(E) Recommends optimal allocation of limited funds by developing a prioritized list of candidate projects over a predefined planning horizon (both short and long term).

(f) For any roads in the inventory or subset thereof, PMS reporting requirements shall include, but are not limited to, percentage of roads in good, fair, and poor condition.

§ 973.210 Indian lands bridge management system (BMS).

In addition to the requirements provided in § 973.204, the BMS must meet the following requirements:

(a) The BIA shall have a nationwide BMS for the federally and tribally owned IRR bridges that are funded under the FLHP and required to be inventoried and inspected under 23 CFR 650, subpart C, National Bridge Inspection Standards (NBIS).

(b) Where a tribe collects data for the tribe's BMS, the tribe shall provide the data to the BIA to be used in the nationwide BMS.

(c) The nationwide and tribal BMSs may be based on the concepts described in the AASHTO's ''Guidelines for Bridge Management Systems.'' [2]

(d) A BMS shall be designed to fit the BIA's or tribe's goals, policies, criteria, and needs using the following components, as a minimum, as a basic framework for a BMS:

(1) A database and an ongoing program for the collection and maintenance of the inventory, inspection, cost, and supplemental data needed to support the BMS. The minimum BMS database shall include:

(i) The inventory data described by the NBIS (23 CFR part 650, subpart C);

(ii) Data characterizing the severity and extent of deterioration of bridge components;

(iii) Data for estimating the cost of improvement actions;

(iv) Traffic information including volumes and vehicle classification (as appropriate); and

(v) A history of conditions and actions taken on each bridge, excluding minor or incidental maintenance.

(2) A systematic procedure for applying network level analytical procedures that are capable of analyzing data for all bridges in the inventory or any subset. The minimum analyses shall include:

(i) A prediction of performance and estimate of the remaining service life of structural and other key elements of each bridge, both with and without intervening actions; and

(ii) A recommendation for optimal allocation of limited funds by developing a prioritized list of candidate projects over a predefined planning horizon (both short and long term).

(e) The BMS may include the capability to perform an investment analysis (as appropriate, considering size of structure, traffic volume, and structural condition). The investment analysis may include the ability to:

(1) Identify alternative strategies to improve bridge condition, safety and serviceability;

(2) Estimate the costs of any strategies ranging from maintenance of individual elements to full bridge replacement;

(3) Determine maintenance, repair, and rehabilitation strategies for bridge elements using life cycle cost analysis or a comparable procedure; and

(4) Perform short and long term budget forecasting.

(f) For any bridge in the inventory or subset thereof, BMS reporting requirements shall include, but are not limited to, percentage of non-deficient bridges.

§ 973.212 Indian lands safety management system (SMS).

In addition to the requirements provided in § 973.204, the SMS must meet the following requirements:

(a) The BIA shall have a nationwide SMS for all federally and tribally

[2] ''Guidelines for Bridge Management Systems,'' AASHTO, 1993, is available for inspection as prescribed at 49 CFR part 7. It is also available from the American Association of State Highway and Transportation Officials (AASHTO), Publication Order Dept., P.O. Box 96716, Washington, DC 20090–6716 or online at *http://www.transportation.org/publications/bookstore.nsf*.

owned IRR and public transit facilities included in the IRR inventory.

(b) Where a tribe collects data for the tribe's SMS, the tribe shall provide the data to the BIA to be used in the nationwide SMS.

(c) The nationwide and tribal SMS may be based on the guidance in ''Safety Management Systems: Good Practices for Development and Implementation.''[3]

(d) The BIA and ITGs shall utilize the SMSs to ensure that safety is considered and implemented as appropriate in all phases of transportation system planning, design, construction, maintenance, and operations.

(e) The nationwide and tribal SMSs may be utilized at various levels of complexity depending on the nature of the IRR facility involved.

(f) An SMS shall be designed to fit the BIA's or ITG's goals, policies, criteria, and needs using, as a minimum, the following components as a basic framework for an SMS:

(1) A database and an ongoing program for the collection and maintenance of the inventory, inspection, cost, and supplemental data needed to support the SMS. The minimum SMS database shall include:

(i) Accident records;

(ii) An inventory of safety hardware including signs, guardrails, and lighting appurtenances (including terminals); and

(iii) Traffic information including volume and vehicle classification (as appropriate).

(2) Development, establishment and implementation of procedures for:

(i) Routinely maintaining and upgrading safety appurtenances including highway-rail crossing warning devices, signs, highway elements, and operational features where appropriate;

(ii) Routinely maintaining and upgrading safety features of transit facilities;

(iii) Identifying and investigating hazardous or potentially hazardous transportation system safety problems, roadway locations and features; and

(iv) Establishing countermeasures and setting priorities to correct the identified hazards and potential hazards.

(3) A process for communication, coordination, and cooperation among the organizations responsible for the roadway, human, and vehicle safety elements;

(4) Development and implementation of public information and education activities on safety needs, programs, and countermeasures which affect safety on the BIA's and ITG's transportation systems; and

(5) Identification of skills, resources and training needs to implement safety programs for highway and transit facilities and the development of a program to carry out necessary training.

(g) While the SMS applies to all federally and tribally owned IRRs in the IRR inventory, the extent of system requirements (e.g., data collection, analyses, and standards) for low volume roads may be tailored to be consistent with the functional classification of the roads. However, adequate requirements should be included for each BIA functional classification to provide for effective inclusion of safety decisions in the administration of transportation by the BIA and ITGs.

(h) For any transportation facilities in the IRR inventory or subset thereof, SMS reporting requirements shall include, but are not limited to, the following:

(1) Accident types such as right-angle, rear-end, left turn, head-on, sideswipe, pedestrian-related, run-off-road, fixed object, and parked vehicle;

(2) Accident severity per year measured as number of accidents with fatalities, injuries, and property damage only; and

(3) Accident rates measured as number of accidents (fatalities, injuries, and property damage only) per 100 million vehicle miles of travel, number of accidents (fatalities, injuries, and property damage only) per 1000 vehicles, or

[3] ''Safety Management Systems: Good Practices for Development and Implementation,'' FHWA and NHTSA, May 1996, may be obtained at the FHWA, Office of Safety, 1200 New Jersey Avenue, SE., Washington, DC 20590, or electronically at *http://safety.fhwa.dot.gov/media/documents.htm*. It is available for inspection and copying as prescribed at 49 CFR part 7.

number of accidents (fatalities, injuries, and property damage only) per mile.

[69 FR 9499, Feb. 27, 2004, as amended at 74 FR 28442, June 16, 2009]

§ 973.214 Indian lands congestion management system (CMS).

(a) For purposes of this section, congestion means the level at which transportation system performance is no longer acceptable due to traffic interference. The BIA and the FHWA, in consultation with the tribes, shall develop criteria to determine when a CMS is to be implemented for a specific federally or tribally owned IRR transportation system that is experiencing congestion. Either the tribe or the BIA, in consultation with the tribe, shall consider the results of the CMS in the development of the IRR transportation plan and the IRRTIP, when selecting strategies for implementation that provide the most efficient and effective use of existing and future transportation facilities to alleviate congestion and enhance mobility.

(b) In addition to the requirements provided in § 973.204, the CMS must meet the following requirements:

(1) For those BIA or tribal transportation systems that require a CMS, consideration shall be given to strategies that reduce private automobile travel and improve existing transportation system efficiency. Approaches may include the use of alternate mode studies and implementation plans as components of the CMS.

(2) A CMS will:

(i) Identify and document measures for congestion (e.g., level of service);

(ii) Identify the causes of congestion;

(iii) Include processes for evaluating the cost and effectiveness of alternative strategies;

(iv) Identify the anticipated benefits of appropriate alternative traditional and nontraditional congestion management strategies;

(v) Determine methods to monitor and evaluate the performance of the multi-modal transportation system; and

(vi) Appropriately consider the following example categories of strategies, or combinations of strategies for each area:

(A) Transportation demand management measures;

(B) Traffic operational improvements;

(C) Public transportation improvements;

(D) ITS technologies; and

(E) Additional system capacity.